

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of) **Mail Stop AF**
Akio Katsube et al.)
Application No.: 09/689,774) Group Art Unit: 3726
Filed: October 13, 2000) Examiner: Jermie E. Cozart
For: HOLDING JIG FOR ELECTRONIC)
PARTS, HOLDING METHOD) Confirmation No.: 8104
THEREFOR, AND MANUFACTURING)
METHOD FOR ELECTRONIC PARTS)

REQUEST FOR RECONSIDERATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated April 10, 2009, reconsideration of the above-identified application is respectfully requested.

Claims 1-4, 7, 9-14 and 19 are pending. Claims 1-4 have been withdrawn.

Claims 7, 9-14 and 19 currently read on the elected species. Applicants appreciate the indication that claims 9-14 are allowable.

The Office Action rejects claim 7 under 35 U.S.C. §103(a) over U.S. Patent No. 5,812,570 to Spaeth in view of U.S. Patent No. 3,733,685 to Kauppila; and rejects claim 19 under 35 U.S.C. §103(a) over Spaeth and Kauppila.

The claimed invention relates to a manufacturing method for manufacturing electronic parts such as semiconductor integrated circuits. When electronic parts are manufactured, a holding jig is used to hold the electronic parts in order to handle a plurality of parts collectively. The term "jig" is defined in The American Heritage Dictionary, Second College Edition, as "A device for guiding a tool or for holding machine work in place." The Examiner's attention is also directed to U.S. Patents

No. 7,516,541 and 7,517,419 which describe jigs as known to the ordinarily skilled artisan. These definitions clearly indicate that a jig holds parts during the course of being manufactured.

In related art methods, when a plurality of semiconductor chips are wire bonded by using a holding jig, substrates are arranged in a tray and the semiconductor chips are die bonded to each of the substrates and then wire bonded. Because the substrates are required to be fixed in the tray, an upper surface of the tray was covered by a pressure jig including openings arranged in accordance with an arrangement of the substrates. A pressure leaf spring was used to fix each of the substrates. However, this led to errors in positional recognition during automated processing and required additional processes to correct the errors. Further, the use of pressure leaf springs affected the ability to miniaturize the substrates.

Independent Claim 7 is directed to a method of manufacturing electronic parts, comprising: providing a holding jig made of elastic material, wherein at least one surface of the elastic material is adhesive; mounting a substrate on the holding jig by an adhesive strength of the surface of the elastic material; mounting an element onto said substrate and electrically connecting the element to said substrate while the substrate is held on the surface of the elastic material; and applying ultrasonic waves to a bonding portion at which the electric connection is performed while the substrate is held on the surface of the elastic material.

The Examiner asserts that the cooling plate 12 in combination with the connecting material 39 formed of, for example, a soft solder such as Zn or PbZn alloys or a thermally conducting elastic adhesive corresponds to Applicants' claimed holding jig. However, the cooling plate 12 and the connecting material 39 clearly do

not constitute a holding jig, as described above. Instead, the connecting material 39 is merely used to connect the cooling plate 12 and the connection plate 3 in the device of Spaeth. The Spaeth apparatus involves a laser diode component including a semiconductor body secured on a heat sink. The connecting material 39 is provided between the cooling plate 12, which is part of the heat sink, and the connection plate 3 which is connected to the semiconductor body through the thermally conducting connecting layer 2. Thus, the cooling plate 12 and the connecting material 39 are clearly part of the device and not a holding jig. In turn a holding jig is clearly not part of a semiconductor device. Kauppila does not overcome the deficiencies of Spaeth noted above.

The dependent claims are allowable for at least the reasons discussed above as well as for the individual features they recite. Early and favorable action with respect to this application is respectfully requested.

Should any questions arise in connection with this application, or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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Date: June 10, 2009

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